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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|------------------|
| 10/529,935 | 12/19/2005 | Gilles Cantin | 21.1056 | 2259 |
| 23718 7590 02/08/2007 SCHLUMBERGER OILFIELD SERVICES 200 GILLINGHAM LANE MD 200-9 SUGAR LAND, TX 77478 | | | EXAMINER COLLINS, GIOVANNA M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3672 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/08/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/529,935

Applicant(s)

CANTIN ET AL.

Examiner

Giovanna M. Collins

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>3/31/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. The abstract of the disclosure is objected to because the term "means" is improper for the abstract. Correction is required. See MPEP § 608.01(b).

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the seal that matches the inner part of the orifice as recited in claim 20 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 13 and 18-22 are objected to because of the following informalities:

Claim 13 recites the limitation "the external surface " in line 2. There is insufficient antecedent basis for this limitation in the claim as this limitation has not been previously recited.

Claim 18 recites the limitation "the shape " in line 2. There is insufficient antecedent basis for this limitation in the claim as this limitation has not been previously recited.

In claim 18, it not clear if the pronoun "each" in line 2 is referring to the add on sector, the inner stiffener or both.

Claim 19 recites the limitation "the shape of the inner stiffener " and "the shape of the through orifice" in lines 1 and 2. There is insufficient antecedent basis for these limitations in the claim as these limitations have not been previously recited.

Claim 20 recites the limitation "the inner part " in line 2. There is insufficient antecedent basis for this limitation in the claim as this limitation has not been previously recited.

In claim 21, in the phrase "material from among the group composed of tungsten and ceramic", it appears the applicant is attempting to use a Markush group. However, the correct format is - - material selected from a group consisting of tungsten and ceramic - -.

In claim 22, it not clear exactly what noun the pronoun "it" is referring to.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 12-13,16,18-19,21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by McLouglin et al. 6668935

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Referring to claims 12, 16 and 21, McLouglin discloses (figs. 1-3) a device for control of the flow through a production tube placed in an oil well, the device comprising a portion (see fig. 3a, at choke 80) of the production tube (20) provided with through orifices (86) and a protection system comprising several add-on ceramic or tungsten sectors (88, col. 6, lines 24-30) assembled around the portion of the tube, each add-on sector being provided with an associated inner stiffener (see fig. 3e, at 88) penetrating into the portion of the production tube through at least one through orifice, at least one of the add-on sectors being provided with at least one opening (see fig. 3e, at 86) extending through the sector and its associated inner stiffener; said protection system providing the device with resistance to wear by erosion, the device also comprising a sliding sleeve that can be controlled to adjust the flow (col. 6, lines 6-11) by sliding over the openings in the sector.

Referring to claim 13, the add-on sectors form a protective envelope (see fig. 3e, where shoulder of insert 88 sits on a shoulder of choke 80) around an external surface of the said portion of the production tube.

Referring to claim 18, McLoughlin discloses each add-on sector (88) and its associated inner stiffener (see fig. 3e, at element 88) are superposed and each is approximately in the shape of an annular portion.

Referring to claim 19, McLoughlin discloses the shape of the inner stiffener (see fig. 3e, at 88) of each add-on sector is approximately complementary to the shape of the through orifice (bottom of orifice 86) in which it is located.

Referring to claim 22, McLoughlin discloses that the orifices have different sizes (col. 7, lines 4-6), therefore the different sectors (88) placed in the different orifices will have openings with different sizes to fit into the different sized orifices (86).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being obvious over McLoughlin '935 in view of Oneal et al. 6491097.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Referring to claims 14-15, McLoughlin does not disclose the sector are fixed to the tubing using clamping rings in upper and lower grooves on the sector. The sector (see fig. 3e) disclosed by McLoughlin does appear to be press fit into the orifice. Oneal teaches that press fit and clamping rings (retaining or snap rings) that fit in grooves on the sector are all art recognized equivalent means of fastening a sector to tubing (see figs. 4a-4c and col. 6, lines 50-52). Inasmuch as the references disclose these elements as art recognized equivalents, it would have been obvious to one of ordinary skill in the exercise art to substitute one for the other. In re Fout, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982). Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus disclosed by McLoughlin to have a clamping ring around a portion of a tubing and upper and lower

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grooves in the sector to hold the clamping rings in view of the teachings of Oneal because press fit and clamping rings are art recognized equivalents.

8. Claims 20 is rejected under 35 U.S.C. 103(a) as being obvious over McLoughlin '935 in view of Norman et al. 6371208.

McLoughlin does not disclose the sector has several opening with different shapes but McLoughlin does disclose the orifices can be varied in order to get the have a variety of different flow patterns. Norman teaches an insert (fig. 15, 72) with a several openings (76,78) having different shapes. As it would be advantageous have a variety of flow patterns, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by McLoughlin to have a several opening with different shapes in view of the teachings of Norman.

9. Claims 20 is rejected under 35 U.S.C. 103(a) as being obvious over McLoughlin '935 in view of Myers 2944794.

McLoughlin does not disclose a seal. Myers teaches (fig. 2) an add on sector (23) with a seal (25) that matches an inner part of an orifice in order to ensure the sector sealingly engages a orifice (col. 2, liens 50-52). As it would be advantageous to ensure there is no leakage around the sector, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by McLoughlin to have a seal in view of the teachings of Myers.

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Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rayssiguier 6325150 teaches ceramic add an sectors for sleeve valves.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 571-272-7027. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gmc


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